

## Joe Sortelli

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9282 Alta Monte Ct, Las Vegas, NV 89178  
(520) 869-6384 — [joe@sortelli.com](mailto:joe@sortelli.com) — <https://github.com/sortelli/>

### PROFILE

Fullstack software engineer with 16+ years of experience in delivering on-time solutions that meet critical business needs. Identifies problems that no one is addressing and proactively takes ownership over fixing them. Possesses an advanced technical background and is an enthusiastic mentor to other engineers. Lifelong learner and passionate practitioner of software engineering best practices.

### SKILLS

- Identifies and solves problems proactively. Takes full ownership of working on any issue that I feel is critical to the success of the business, regardless of current primary job function.
- Advanced experience with frontend and backend programming in many languages, including with C, Java, Javascript, Ruby, Python, and Go. Familiarity with many others.
- Experienced with modern web application stacks built on open source components such as Spring, React, Angular, Express, Rails and more. Learns new stacks and codebases very quickly.
- Managed multiple engineering teams with up to eight direct reports at a time. Experienced leader and mentor, with a strong product management sense.
- Experience integrating with domestic and international payment systems, such as Stripe, PayPal, Affirm, Checkout.com, Razorpay, MobiKwik and more.
- Experience building cloud based applications with distributed microservices using such tools and services as Docker, Marathon, AWS, Google App Engine, New Relic, Segment.io, Optimizely, and more.
- Specialized focus in build systems and build tools, including advanced knowledge of git, Gradle, Gulp, Maven, SBT and many others. Passionate about improving the overall developer experience through best practices and better tooling.
- Experienced in advanced UNIX programming topics, including interprocess communication, network programming, memory management, process control, optimization and dynamic linking.
- Experienced in semantic web programming, ontological reasoning, and linked data application development. Worked with RDF, SPARQL, SWRL, SPIN, RDFS, and OWL.

### WORK HISTORY

#### **Pie Systems**

San Francisco, CA.

Joined a two person engineering team one year after product launch to enhance the backend systems to support new users and product features as the company expands into new international markets.

This work included standing up a highly available API gateway in front of the existing backend Heroku services, moving backend image processing features to their own standalone AWS Lambda functions, implementing a new API to represent different customer flows in different international markets based on local legal requirements, and integrating with an international partner company's tax refund system.

#### **Udacity**

Mountain View, CA.

In addition to collecting payments from customers, The Udacity Payments team is responsible for

*Senior Software Engineer*

**October 2019 – Present**

*Senior Software Engineer, Payments Team*

**July 2017 – July 2019**

enrolling and unenrolling customers from Udacity courses based on complex business rules that include subscription status, promotions, and relevant local legal requirements. The Payments team also worked closely with the Accounting and Data Analytics teams to provide business critical payment and enrollment data and the Legal team to stay in compliance with domestic and international tax and online transaction regulations.

As a senior engineer on the team, I led the project to build a new standalone React frontend application for accepting all payments from customers, allowing for flexibility in choosing various domestic and international payment options based on region specific business logic.

Made large scale modifications to the backend and frontend payments systems to integrate with many new payment processors and to provide new subscription flows for customers.

Identified systemic issues with marketing and analytic data collection throughout the entire Udacity platform and took ownership over working with stakeholders across the company to correct the problem.

### **Udacity**

Mountain View, CA.

*Senior Fullstack Engineer, Careers Team*

**June 2015 – February 2017**

First engineer hired to help stand up the new Udacity Careers Team, responsible for leading the engineering efforts to build services that help Udacity students in finding full time employment after graduation.

Operated with high level of autonomy to work on any engineering problem across the entire Udacity platform to pursue the goals of the Careers Team.

Created the first microservices based products at Udacity that existed outside of the monolithic single app architecture, utilizing tools such as Docker, Mesos, and Marathon. Integrated Udacity student data with third party job posting and services products to allow students to showcase their Udacity projects as part of their professional hiring profile.

### **Palantir Technologies**

Palo Alto, CA.

*Internal Applications Developer*

**May 2014 – June 2015**

Senior fullstack engineer on the Internal Applications team, responsible for building internally focused products to help Palantir scale.

Performed a major system migration from various legacy backend systems to an off-the-shelf enterprise HRIS system. Advised and mentored other engineers on engineering best practices, including starting a culture of code review and automated testing.

### **Palantir Technologies**

Palo Alto, CA.

*Internal Tools Team Lead*

**May 2013 – May 2014**

Led the Internal Tools team at Palantir, which is responsible for the builds and build systems across the organization. Managed eight direct reports, and focused on mentorship and growth of reports as well as product management. Worked closely with internal customers to create many small and large sized products and tools that address critical business needs.

Moved Palantir from a small monolithic home-grown build system to one based on open source tools. Increased the scale of operations of the build team from supporting a single group of product engineers to supporting all the engineers at the company.

Transitioned the team from supporting hand-maintained servers to using Puppet to efficiently manage hundreds of build servers. Created plugins and tools for eclipse, jenkins, gradle, Bamboo, Stash and many other systems.

Created a two way SSL based encryption layer for Elasticsearch. This fork requires a client certificate for all node-to-node and HTTP endpoint communication.  
Available at <https://github.com/sortelli/elasticsearch>.

**Palantir Technologies**

Palo Alto, CA.

*DeltaWorks Team Lead*

**January 2013 – May 2013**

Co-led team of Forward Deployed Software Engineers, named DeltaWorks. DeltaWorks is an off-cycle product engineering developer group responsible for writing customer focused products to be used on the front lines by our Business Development Forward Deployed Engineers.

**Palantir Technologies**

Palo Alto, CA.

*Forward Deployed Software Engineer*

**May 2012 – January 2013**

Forward Deployed Software Engineer on the DeltaWorks team. Transitioned all the Business Development (BD) engineers from using a small SBT based build system to properly leveraging Gradle for a better developer experience.

Wrote and maintained BD product code for Palantir Gotham, Palantir's flagship product. Trained BD new-hires during the company on-boarding process on how to be effective Forward Deployed Engineers.

**Raytheon Missile Systems**

Tucson, AZ.

*Multi-Disciplined Engineer*

**June 2003 – May 2012**

Member of Raytheon Missile Systems' Engineering Productivity Enhancement Team, and lead architect of the Raytheon Exchange semantic business data analytics tool.

Chief programmer and developer team lead for RMS PDM, a multi-business product data management and configuration control database system. Worked directly with customers to continuously improve the functionality and capabilities of the system.

Created a Ruby based framework on top of the C API of RMS PDM, and integrated a Ruby interpreter into the application daemon to create a framework for plugin development.

Designed and built a semantic enterprise business data analysis platform, using Hadoop for distributed RDF generation of large datasets, and rule based inferencing. Created a SPARQL integration for Elasticsearch, to enable a faceted full text search capability for the backend triple store.

**EDUCATION**

*Bachelor of Science*, Computer Science

University of Arizona, Tucson, AZ

December 2007

Minors in Computer Engineering and Math.